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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/628,304 | 07/29/2003 | Alma L. Coats | 14974.0002 | 4474 |

7590 07/11/2006

STEPTOE & JOHNSON LLP
Attn: Docket Administrator - Box USPTO
1330 Connecticut Avenue, NW
Washington, DC 20036

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| EXAMINER |
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HAMILTON, CYNTHIA

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| ART UNIT | PAPER NUMBER |
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1752

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



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| APPLICATION NO./ CONTROL NO. | FILING DATE | FIRST NAMED INVENTOR / PATENT IN REEXAMINATION | ATTORNEY DOCKET NO. |
|---------------------------------|-------------|---|---------------------|

10/628,304 —

Coates et al

EXAMINER

Cynthia Hamilton

ART UNIT

PAPER

1752

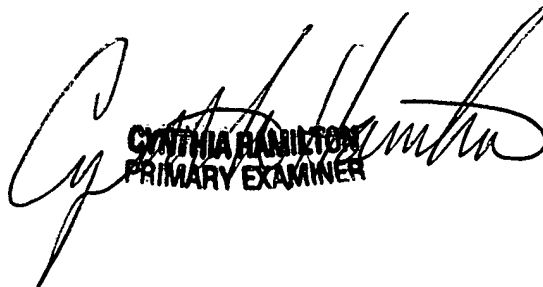
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Commissioner for Patents

SEE ATTACHMENT.


CYNTHIA HAMILTON
PRIMARY EXAMINER

Cynthia Hamilton
Primary Examiner
Art Unit: 1752

ATTACHMENT

1. **Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.** The amendment filed by applicants has been entered for this reason. The examiner notes for the record that applicants did call the examiner at an earlier date to question the finality. She stated that it appeared incorrect and had the correction made in the automated systems of the USPTO but failed to amend the record by written letter. Applicants are correct in that an error was made. The examiner wishes to make clear on the record that applicants promptly informed the USPTO of this problem.
2. The reply filed on May 8, 2006 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): (I) Applicants failed to set forth which claims of those amended and added after election, are readable upn the elected species. See Office action of September 4, 2004, paragraphs numbered 6. Since the period for reply set forth in the prior Office action has expired, this application will become abandoned unless applicant corrects the deficiency and obtains an extension of time under 37 CFR 1.136(a). (II) Applicants also failed to amend claim 72 or argue why the examiner's rejection under 35 USC 112, second paragraph was wrong. . See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

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3. The examiner makes this requirement of applicants at this time because the subspecies into which applicants have divided their claims at this point of application history is so confusing that the examiner needs clarification as to what is elected and what is not elected. Claim 30 and 81 as presented in the last office action and now are outside the scope of the elected species technically because Example 1 does not present a composition wherein 15-45 weight% ethoxylated (5) pentaerythritol tetraacrylate is present. Example 1 presents a composition wherein 48.74weight% of ethoxylated (5) pentaerythritol tetraacrylate is present. None of applicant's subgenera set forth in Tables 1-9 read on the elected invention because of this percentage being so high. The examiner notes that applicants in their disclosure of Tables 1-9 presented examples with volume% and examples with weight% thus also confusing the subgenera sought in the original disclosure. Applicants also presented several varieties of subgenera of their original invention. One starts at the bottom of page 4 and finishing on the top of page 6 as several "embodiments". A second listing of subgenera starts on page 9 of the specification applicants reference stock solutions for making (1) general purpose resin as is elected species of Example 1, (2) a tough resin, (3) a flexible resin, (4) a super flexible resin, (5) a soft rubber resin, (6) a medium rubber resin, (7) a hard rubber resin and (8) a metallic resin. Applicants also set forth a subgenus by the structures set forth on pages 10-11 for a urethane oligomer.

4. This plethora of subspecies has forced the examiner to require clarification in the form or requiring the applicant to "shoulder" his burden by meeting this requirement of setting forth exactly what claims read on the elected invention at the time of the amendment of May 8, 2006. The examiner needs to know if the photoinitiator being present is part of the elected invention as

seen by applicants. She has already stated that she did not find in the prior art elected species with reference to the polyester urethane acrylate specified, the ethoxylated trimethylol triacrylate and the ethoxylated pentaerythritol pentaacrylate and photoinitiator. Thus, claims, if they fall within those for which applicant has support in their original description and claims, would be allowable.

5. The examiner notes for the record that currently amended claims 30-31 are not the same claims 30-31 objected to by this examiner in the Office Action mailed 03/02/2006. Applicants left out the limitation of intervening claim 27, now canceled, which required “wherein the first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer”. Applicants have added to claim 31 the broader scope of choices, i.e. “an aliphatic polyester urethane diacrylate oligomer, an aliphatic urethane acrylate oligomer, an aliphatic urethane containing bound silicone, or an aromatic urethane acrylate oligomer “ as was found in cancelled claim 1, but was not part of either claim 30 or 31 due to the limitation in claim 27 upon which both were dependent of “wherein the first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer”.

Claim 30 as objected to in the last office action read as follows with italics added by this examiner:

A liquid stereolithography resin comprising
a first urethane acrylate oligomer,
a first acrylate monomer,
a polymerization modifier,
a second urethane acrylate oligomer different from the first urethane acrylate oligomer,
and a stabilizer;

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wherein

the first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer,

the first acrylate monomer is ethoxylated (3) trimethylolpropane acrylate,

and the polymerization modifier is selected from the group consisting of

isobornyl acrylate,
ethoxylated (5) pentaerythritol tetraacrylate,
an aliphatic urethane acrylate,
tris-(2-hydroxyethyl)isocyanurate triacrylate,
and mixtures thereof,

and the resin includes 5-35 weight % an aliphatic polyester urethane diacrylate oligomer,

and 0.5- 25 weight % ethoxylated (3) trimethylolpropane acrylate,

and the resin includes 15-45 weight% ethoxylated (5) pentaerythritol tetraacrylate.

The claim 31 that was objected to was of the independent form of:

The liquid stereolithography resin of claim 28, wherein the resin includes 0.5-25 weight % an aliphatic urethane acrylate.

what was allowed?

Claim 31 as was objected to in the last office action with italics added by this examiner was of the form:

A liquid stereolithography resin comprising

a first urethane acrylate oligomer,

a first acrylate monomer,

a polymerization modifier,

a second urethane acrylate oligomer different from the first urethane acrylate oligomer,

and a stabilizer;

wherein

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the first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer,

the first acrylate monomer is ethoxylated (3) trimethylolpropane acrylate,

and the polymerization modifier is selected from the group consisting of

isobornyl acrylate,
ethoxylated (5) pentaerythritol tetraacrylate,
an aliphatic urethane acrylate,
tris-(2-hydroxyethyl)isocyanurate triacrylate,
and mixtures thereof,

and the resin includes 5-35 weight % an aliphatic polyester urethane diacrylate oligomer,

and 0.5- 25 weight % ethoxylated (3) trimethylolpropane acrylate

and 0.5-25 weight % an aliphatic urethane acrylate.

6. The examiner notes for the record that currently amended claims 81-82 are the same claims 81-82 objected to by this examiner in the Office Action mailed 03/02/2006 written in independent form. The examiner noted that both by volume percentage and weight percentage that the composition set forth in claim 81 is not within the scope of the species of elected Example 1 because the amount of SR494 which is the component ethoxylated (5) pentaerythritol tetraacrylate is in the elected Example 1 present at 48% volume and 48.74 % weight of the composition. The compositions of claim 81 read instead on the subgenus of Table 1B of applicants' specification. Example 1 elected by applicants does not read on any of the compositions of Tables 1-9 set forth in their specification due to the amount of ethoxylated (5) pentaerythritol tetraacrylate.

7. For clarification purposes the examiner again set forth Example 1 which is the elected species below:

EXAMPLE 1

[0105] A general purpose resin was prepared with the following components, which are listed both as a % by volume and as a percent by weight:

| COMPONENT | % VOLUME | % BY WEIGHT |
|-----------|----------|-------------|
| CN964E75 | 38.25 | 37.83 |
| SR494 | 48 | 48.74 |
| CN965 | 10 | 9.9 |
| SR1135 | 1.75 | 1.75 |
| TIN292 | 2 | 1.78 |

[0106] In this regard, it should be noted that CN964E75 and CN965 both contain urethane acrylate oligomers. SR494 is an ethoxylated pentaerythritol tetraacrylate. SR1135 is a photoinitiator and TIN292 is a stabilizer. In particular, CN964E75 includes an aliphatic urethane acrylate (75 to 90% by weight) and ethoxylated trimethylolpropane triacrylate esters (10 to 25% by weight). SR494 is an ethoxylated pentaerythritol tetraacrylate (100% by weight). CN965 is an aliphatic urethane acrylate (100% by weight). SR1135 is a mixture including 2,4,6-trimethylbenzoyldiphenylphosphine oxide, alpha hydroxyketones and benzophenone derivatives and includes 2-hydroxy-2-methyl-1-phenyl-1-propanone (22 to 26% by weight) and 2,4,6-trimethylbenzophenone (6 to 7% by weight). TIN292 can be purchased from CIBA, Inc. All of the other components are sold by Sartomer Company, Inc.

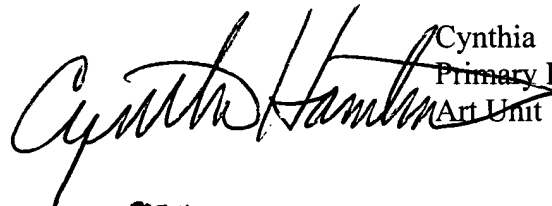
[0107] To prepare a general purpose resin, CN964E75 was blended with CN965. To this mixture was added SR 494. To this SR1135 and TIN292 were added. The final weight % of each component is described above in the table.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday 9:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 Cynthia Hamilton
Primary Examiner
Art Unit 1752

July 5, 2006

CYNTHIA HAMILTON
PRIMARY EXAMINER